

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Original) A cabled conductor comprising a plurality of transposed strands each comprising one or more filaments comprising grains of textured anisotropic superconducting compounds which have crystallographic grain alignment that is substantially unidirectional and directionally independent of the rotational orientation of the strands and filaments in the cabled conductor.
2. (Original) A cabled conductor comprising a plurality of strands transposed about the longitudinal axis of the conductor, each strand comprising one or more filaments comprising grains of an anisotropic superconducting compound textured such that the crystallographic c axis alignment of each grain of the superconducting compound is substantially perpendicular to the longitudinal axis of the cabled conductor, independent of the rotational orientation of the strands and filaments in the cabled conductor.
3. (Original) A cabled conductor according to claim 2 wherein each strand further comprises a conductive matrix material surrounding or supporting the filaments.
4. (Original) A cabled conductor according to claim 2 wherein the anisotropic superconducting compound is a superconducting ceramic.
5. (Original) A cabled conductor according to claim 4 wherein the superconducting ceramic material comprises a superconducting oxide.
6. (Original) A cabled conductor according to claim 2 wherein each strand is insulated.

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7. (Original) A cabled conductor according to claim 2 wherein each filament is twisted.

8. (Original) A cabled conductor according to claim 7 wherein each strand has a preselected strand lay pitch and each filament has a preselected filament cross-section and filament twist pitch, and the strand lay pitch, filament cross-section and filament twist pitch being cooperatively selected to provide a filament transposition area permitting crystallographic grain alignment in the grain direction at the filament cross-over points.

9. (Original) A cabled conductor according to claim 8 wherein the strand lay pitch, filament cross-section and filament twist pitch are cooperatively selected to provide a filament transposition area which is always at least ten times the preferred direction area of a typical grain of the desired anisotropic superconducting compound.

10. (Original) A cabled conductor according to claim 5 wherein the superconducting ceramic is micaceous or semi-micaceous.

11. (Original) A cabled conductor according to claim 10 wherein the superconducting ceramic is a member of the bismuth family of superconducting oxides.

12. (Original) A cabled conductor according to claim 11 wherein the filaments are twisted and the filament cross-section, filament twist pitch, and strand lay pitch are cooperatively selected so that at each point on the filament, regardless of how it is twisted, the filament width in the plane of the widest longitudinal cross-section of the conductor is always greater than, and preferably twice as large as the filament height orthogonal to the widest longitudinal cross-section of the conductor.

13. (Original) A cabled conductor according to claim 11 wherein the superconducting ceramic is BSCCO 2212.

14. (Original) A cabled conductor according to claim 11 wherein the superconducting ceramic is BSCCO 2223.

15. (Original) A cabled conductor according to claim 10 wherein the superconducting ceramic is a member of the thallium family of superconducting oxides.

16. (Original) A cabled conductor according to claim 5 wherein the superconducting ceramic is a member of the rare earth family of superconducting oxides.

17. (Original) A cabled conductor according to claim 16 wherein the cabled conductor is a Litz cable.

18. (Original) A cabled conductor according to claim 17 wherein the cable is a Rutherford cable.

19. (Original) A cabled conductor according to claim 17 wherein the cable is a Roebel cable.

20. (Original) A cabled conductor according to claim 17 wherein the cable is a braided cable.

21. Cancelled.

22. (Original) A cabled conductor according to claim 9 wherein the strand lay pitch, filament cross-section and filament twist pitch are cooperatively selected to provide a filament

transposition area which is always at least thirty times the preferred direction area of a typical grain of the desired anisotropic superconducting compound.

23. (Original) A cabled conductor according to claim 1 wherein each strand has a preselected strand lay pitch and each filament has a preselected filament cross-section and filament twist pitch, and the strand lay pitch, filament cross-section and filament twist pitch being cooperatively selected to provide a filament transposition area permitting the crystallographic grain alignment in the grain direction at the filament cross-over points.

24. (Original) A cabled conductor according to claim 23 wherein the strand lay pitch, filament cross-section and filament twist pitch are cooperatively selected to provide a filament transposition area which is always at least ten times the preferred direction area of a typical grain of the desired anisotropic superconducting compound.

25. (Original) A cabled conductor according to claim 24 wherein the strand lay pitch, filament cross-section and filament twist pitch are cooperatively selected to provide a filament transposition area which is always at least thirty times the preferred direction area of a typical grain of the desired anisotropic superconducting compound.

26. (Original) A cabled conductor according to claim 1, wherein each strand has a strand lay pitch and each filament has a filament cross-section and filament twist pitch, and the filament cross-section, filament twist pitch, and strand lay pitch are cooperatively selected so that the filament width in the plane of the widest longitudinal cross-section of the conductor is greater than the filament height of the widest longitudinal cross-section of the conductor.

27. (Original) A cabled conductor according to claim 2, wherein each strand has a strand lay pitch and each filament has a filament cross-section and filament twist pitch, and the filament cross-section, filament twist pitch, and strand lay pitch are cooperatively selected so that

the filament width in the plane of the widest longitudinal cross-section of the conductor is greater than the filament height of the widest longitudinal cross-section of the conductor.

28. (Original) A cabled conductor according to claim 1, wherein the cabled conductor has an aspect ratio, width to height of the conductor, greater than or equal to about 3:1.

29. (Original) A cabled conductor according to claim 2, wherein the cabled conductor has an aspect ratio, width to height of the conductor, greater than or equal to about 3:1.

30. (Original) A cabled conductor according to claim 1, wherein the cabled conductor has an aspect ratio, width to height of the conductor, greater than or equal to about 5:1.

31. (Original) A cabled conductor according to claim 2, wherein the cabled conductor has an aspect ratio, width to height of the conductor, greater than or equal to about 5:1.

32. (Original) A cabled conductor according to claim 1, wherein the cabled conductor has a packing factor of at least about 75 percent.

33. (Original) A cabled conductor according to claim 1, wherein the cabled conductor has a packing factor of at least about 85 percent.

34. (Original) A cabled conductor according to claim 2, wherein the cabled conductor has a packing factor of at least about 75 percent.

35. (Original) A cabled conductor according to claim 2, wherein the cabled conductor has a packing factor of at least about 85 percent.